

10/528990

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



2 MAR 2005

(43) International Publication Date
8 April 2004 (08.04.2004)

PCT

(10) International Publication Number
WO 2004/029878 A1

(51) International Patent Classification⁷: G06T 7/00, 5/50

(21) International Application Number:
PCT/GB2003/004163

(22) International Filing Date:
25 September 2003 (25.09.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0222211.5 25 September 2002 (25.09.2002) GB

(71) Applicant (for all designated States except US):
FORTKEY LIMITED [GB/GB]; Elvingston Science
Centre, Elvingston, Gladsmuir, East Lothian EH33 1EH
(GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **MORRISON**,
Steven [GB/GB]; C/o Fortkey Limited, Elvingston Science
Centre, Elvingston, Gladsmuir, East Lothian EH33
1EH (GB). **CLARKE, Stuart, James** [GB/GB]; C/o
Fortkey Limited, Elvingston Science Centre, Elvingston,

Gladsmuir, East Lothian EH33 1EH (GB). **LINNETT**,
Laurence, Michael [GB/GB]; C/o Fortkey Limited,
Elvingston Science Centre, Elvingston, Gladsmuir, East
Lothian EH33 1EH (GB).

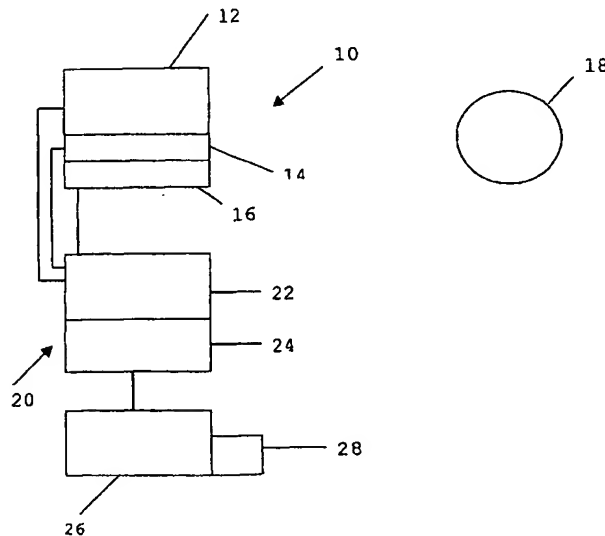
(74) Agent: **KENNEDYS PATENT AGENCY LIMITED**;
Floor 5, Queens House, 29 St. Vincent Place, Glasgow G1
2DT (GB).

(81) Designated States (national): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC,
SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA,
UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,
SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM,
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: IMAGING AND MEASUREMENT SYSTEM



(57) Abstract: Apparatus and method for presenting a highly spatially accurate visualisation of a scene from which measurements can be taken. A sensor is located in relation to a camera, and provides positional characteristics of the camera as it collects frames of video images. Using the positional characteristics the frames are corrected. The corrected frames are then synchronised to form an accurate mosaic of a scene. Example embodiments are described where the moving camera is used to survey or inspect underwater apparatus, roads, runways, railways, crime or accident scenes, archaeological digs and the inside of boilers, chimneys and pipelines.

WO 2004/029878 A1